Section 9: Pharmacy

Policy 09-001-00……Documentation of Allergies

Policy 09-002-00……RN Initiated Drug Therapy

Policy 09-003-00……Stock Medications

Policy 09-004-00……Medication Administration – Nursing Practice

09-004-01……Guidelines for Administering Medications

Policy 09-005-00……Dispensing Medications

Policy 09-006-00……Administering or Dispensing Pharmaceuticals – Documentation

Policy 09-007-00……Administering Medications – IM Injection

09-007-01……Guidelines for Administering IM Injections

Policy 09-008-00……Administering Medications – IV Direct

09-008-01……Guidelines for Administering Medications IV Direct

Policy 09-009-00……Administering Medications via Subcutaneous Infusion Set

09-009-01……Guidelines for Administering Medications via Subcutaneous infusion Set

Policy 09-010-00……Repackaging Pharmaceuticals

09-010-01……Repackaging Pharmaceuticals– Container Specification Guidelines

Policy 09-011-00……Labeling Pharmaceutical Agents

Policy 09-012-00……Controlled Substances

Policy 09-013-00……Audit of Controlled Substances

Policy 09-014-00……Acquiring Blood and Blood Components

Policy 09-015-00……Administering Blood and Blood Components

09-015-01……Guidelines for Administering Blood Products

09-015-02……Guidelines for Using a Pressure Device in Blood Transfusions

Policy 09-016-00……Suspected Adverse Reaction to a Transfusion

Policy 09-017-00……Compounding of Medications

Policy 09-018-00……Bronchiolitis Management Protocol

Department of Health Government of Nunavut	NURSING POLICY, PROCEDURE AND PROTOCOLS **Community Health Nursing**		
TITLE:		**SECTION:**	**POLICY NUMBER:**
Documentation of Allergies		Pharmacy	09-001-00
EFFECTIVE DATE:	**REVIEW DUE:**	**REPLACES NUMBER:**	**NUMBER OF PAGES:**
February 10, 2018	February 2021		1
APPLIES TO:			
Community Health Nurses			

POLICY:

During the initial assessment process and before prescribing/dispensing any medication, the client is asked about any known allergies or history of adverse drug reactions. This information is documented in the Progress Notes.

All drug allergies / adverse drug reactions are printed on the inside cover of the client's medical record in the section labeled "Allergies / Adverse Reactions". If the cover of the medical record does not contain defined sections to enter the information (as with the older chart styles), then an allergy alert sticker is affixed to the inside cover of the medical record and all drug allergies / adverse drug reactions are legibly documented there.

Approved by:	Effective Date:
Chief Nursing Officer — Date: 11 FEB 2011	April 1, 2011
Deputy Minister of Health and Social Services — Date: February 11, 2011	

Department of Health Government of Nunavut	NURSING POLICY, PROCEDURE AND PROTOCOLS
	Community Health Nursing

TITLE:		**SECTION:**	**POLICY NUMBER:**
RN Initiated Drug Therapy		Pharmacy	09-002-00
EFFECTIVE DATE:	**REVIEW DUE:**	**REPLACES NUMBER:**	**NUMBER OF PAGES:**
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APPLIES TO:			
Community Health Nurses			

POLICY:

Registered nurses employed as a Community Health Nurse may implement drug therapy without a direct physician order only as directed by the *Nunavut Formulary*.

PRINCIPLES:

Pharmacy and Therapeutics Committee will maintain an up to date Formulary and make copies available in each health centre.

RELATED POLICIES, GUIDELINES AND LEGISLATION:

Policy 09-004-00	Medication Administration – Nursing Practice
Guidelines 09-004-01	Guidelines for Administering Medications
Policy 09-005-00	Dispensing Medications
Policy 09-006-00	Administering or Dispensing Medications – Documentation
Policy 09-010-00	Repackaging Pharmaceuticals
Policy 09-011-00	Labeling Pharmaceutical Agents

REFERENCES:

Nunavut Pharmacy & Therapeutics Committee. *Nunavut Formulary*.

Approved by:	Effective Date:
11 FEB 2011 **Chief Nursing Officer** **Date**	April 1, 2011
February 11, 2011 **Deputy Minister of Health and Social Services** **Date**	

Department of Health Government of Nunavut	NURSING POLICY, PROCEDURE AND PROTOCOLS		
	Community Health Nursing		
TITLE:		**SECTION:**	**POLICY NUMBER:**
Stock Medications		Pharmacy	09-003-00
EFFECTIVE DATE:	**REVIEW DUE:**	**REPLACES NUMBER:**	**NUMBER OF PAGES:**
February 10, 2018	February 2021		1
APPLIES TO:			
Community Health Nurses			

POLICY 1:

Each health centre is responsible for ordering stock medications. The Supervisor of health programs shall designate a nursing staff to perform this duty. Only the medications listed on the *Nunavut Formulary* and the *Community Health Centre Stock List* shall be ordered for the community.

All medications will be ordered and stored in accordance with the Pharmacy and Therapeutics Policies and Procedures

RELATED POLICIES, GUIDELINES AND LEGISLATION:

Nunavut Pharmacy and Therapeutics Committee. *Nunavut Formulary*.
Nunavut Pharmacy and Therapeutics Committee. *Nunavut Health and Social Services Community Health Centre Stock List*

Approved by:	Effective Date:
11 FEB 2011 Chief Nursing Officer — Date	April 1, 2011
February 11, 2011 Deputy Minister of Health and Social Services — Date	

Department of Health Government of Nunavut	NURSING POLICY, PROCEDURE AND PROTOCOLS		
	Community Health Nursing		
TITLE:		**SECTION:**	**POLICY NUMBER:**
Medication Administration – Nursing Practice		Pharmacy	09-004-00
EFFECTIVE DATE:	**REVIEW DUE:**	**REPLACES NUMBER:**	**NUMBER OF PAGES:**
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APPLIES TO:			
Community Health Nurses			

POLICY 1:

The Department of Health and Social Services (HSS) is committed to ensuring safe medication practices are followed during the ordering, dispensing, and administration of medication.

Medications may be administered by:

- **Nurses employed by HSS or contracted through outside agencies to work for HSS**
- **Student nurses under the supervision of a nurse.**
- **Physicians contracted with HSS**
- **Registered Psychiatric Nurses**
- **Licensed Practical Nurses**
- **Registered Midwives**
- **Clients and/or family members, under the direction and knowledge of the nurse coordinating their care, may administer medications ordered by the physician**
- **Unregulated workers, under the direction, supervision and knowledge of the nurse, may administer oral Tb medications which are ordered under Direct Observed Therapy and in accordance with the *Tb Manual*.**

POLICY 2:

All medication orders must include the name of the client, medication name, dose, route of administration and frequency. A nurse may only receive medication orders from a medical practitioner, Chief Medical Officer of Health, dental professional, registered midwife or nurse practitioner licensed to practice in Nunavut.

POLICY 3:

Registered Nurses shall refer to the textbook *Clinical Nursing Skills and Techniques 7th edition* (Perry and Potter) for instruction on basic nursing medication administration procedures, unless specified otherwise in this policy and procedure manual.

POLICY 4:

Administration of medications via the following routes is considered a specialized competence by the nurse:

- **Administration of medications below the drip chamber (IV direct),**
- **Administration of medications via central venous access devices,**
- **Administration of medications via umbilical lines, and**
- **Administration of medications via Endotracheal tube.**
- **Administration of immunizations**

DEFINITIONS:

Nurse: a Registered Nurse who has a temporary or current certificate of registration with the Registered Nurses Association of Northwest Territories and Nunavut (RNANTNU) and is employed by HSS.

Dispensing: involves the selection, preparation and transfer of one or more prescribed drug doses to a client or his/her representative for administration. This is different from administration of medications as it is a transferred function.

Medication Administration: is the process of giving a medication to a client.

Independent Verification: An independent verification is a process in which a second nurse conducts verification. In this process and with the goal of reducing error, ideally the first nurse does not communicate what he/she expects the second nurse to see.

PRINCIPLES:

- All nurses are expected to be familiar with and follow the standards of practice of RNANTNU.
- To ensure safe medication administration, the nurse must adhere to the nursing standard *the five rights of medication administration*: (1) The Right Medication, (2) The Right Dose, (3) The Right Route, (4) The Right Time, and (5) The Right Client.

RELATED POLICIES, GUIDELINES AND LEGISLATION:

Policy 09-005-00	Dispensing Medications
Policy 09-006-00	Administering or Dispensing Medications – Documentation
Policy 09-017-00	Compounding of Medications
Policy 09-010-00	Repackaging Pharmaceuticals
Policy 09-011-00	Labelling Pharmaceutical Agents
Nunavut Tb Manual	

REFERENCES:

Nunavut Pharmacy and Therapeutics Committee. *Nunavut Formulary*.

Perry, A. G. and Potter, P.A. (2010). *Clinical Nursing Skills and Techniques 7th ed*. Mosby.

GUIDELINE 09-004-01

Administering Medications

1. To ensure safe medication administration, the nurse must adhere to the nursing standard *the five rights of medication administration*: (1) The Right Medication, (2) The Right Dose, (3) The Right Route, (4) The Right Time, and (5) The Right Client.

2. Review "Medications" pages 506-627; Potter and Perry (2010) *Clinical Nursing Skills & Techniques 7th edition*" for further steps in ensuring safe medication administration.

3. When a nurse is unsure of a medication, the nurse should review the CPS and/or any other available resources, consult professional colleagues (i.e. physician, pharmacist, co-workers) prior to administration of the medication.

4. At any time a nurse can request a second nurse to verify medication (i.e. correct dose, drug, strength of drug) to be administered and/or dispensed to a client. Verification is recommended when the nurse is unfamiliar with a medication; or a complicated calculation is involved; or there is a high risk associated with the medication (e.g. Heparin, Insulin). The verification by the second nurse is done independently (i.e. independent verification).

5. Confirm the client's identification according to Policy 07-018-00: Client Identification for Clinical Care.

6. To avoid medication interaction and contraindications, the Registered Nurse must check other medications currently prescribed to that client, including over the counter medications and herbal therapies.

7. Confirm the client is not allergic to the medication.

8. If the medication is to be administered to the client while in the health centre, administer immediately after prepared and make sure the client takes the medication before leaving the room.

9. Document all medication immediately after administering the medication.

10. Student nurses will be supervised when administering medications.

11. There is a one-hour leeway before or after the scheduled administration time to give medications as long as the dosing interval is greater than two hours. Therefore, IV antibiotic schedules can be altered within this interval to assist in offering the client more reasonable times to present to the health centre for IV therapy.

12. Narcotics that are ordered 3 or more hours apart may be given within 30 minutes of the next administration time.

13. If a client vomits shortly after taking medications, or if pills are visible in the emesis, determine if another dose is to be given. Consult a physician as appropriate.

14. Complete an Incident Report form on discovery of an error or near miss and in accordance with the Nunavut Formulary Manual.

Client Refusal to Take Medication

1. If the client refuses to take medications that were administered or dispensed, explore the reasons for the refusal with the client. Address any misconceptions, answer any related questions, and provide any additional information that will help the client make an informed decision.

2. If the client still refuses to take the medication, explore other medication / treatment options. If the only alternative medication option is not included in the *Nunavut Formulary*, consult the physician.

3. Document the client's reasons for refusing to take the medication, any action taken, and the physician's response (if consulted).

Security of Medications

1. All medications are stored in designated areas.

2. The door to the medication room is to remain closed and should never be propped open.

3. Do not leave medications unattended in the clinic room or emergency room.

4. Emergency medications are securely stored in the crash cart.

5. Narcotics and Controlled Substances must be stored in accordance with the Nunavut Pharmacy and Therapeutics *Policy and Procedures for Handling Controlled Substances in Community Health Centres and Birthing Centre in Nunavut* as documented in the Nunavut Formulary Manual.

Pediatric Considerations

1. Children's medication doses require cautious calculations. The nurse dispensing pediatric medications are responsible for being aware of the safe dosage range for those medications.

2. If the child refuses oral preparations because of the medication's bitterness, the medication may mix the drug with a small amount (1 teaspoon) of sweet tasting substance (e.g. applesauce, jam). Do not use honey in infants because of the risk of botulism. Do not place medications in an essential food item (e.g. milk or formula) as child may refuse the food at a later date.

3. Measure liquid medications using a plastic calibrated oral dosing syringe (preferred method) or medicine cup.

Student Nurses

1. Student Nurses must obtain narcotic and controlled drugs from a nurse employed by Department of Health and Social Services and the entry must be co signed by the supervising nurse.

2. Student nurses may administer IV medications above the drip chamber with an RN/Clinical Instructor in attendance.

3. Student nurses may not administer IV direct medications.

4. Student nurses in consolidation who have been taught the skill and whose competence has been established by the preceptor may flush a peripheral "saline lock" with saline.

Documentation

Document all medications administered in the client's health record immediately after administration. When medications are not given for any reason, document the client's reasons and any actions taken.

Client Education

1. Educate the client about the medications being administered and/or dispensed including purpose, common side effects and what to do if a missed dose occurs.

2. Assess the client's knowledge of their medications. Provide information as needed. Involve an interpreter as needed.

RELATED POLICIES, GUIDELINES AND LEGISLATION:

Policy 05-004-00	Risk Management Incident Reporting
Template 05-004-03	Incident Report form

REFERENCES

Perry, A. G. and Potter, P.A. (2010). *Clinical Nursing Skills and Techniques 7th ed*. Mosby.

Kozier, B., Erb, G. 2000 Fundamentals of Nursing, Canadian Edition, Chapter 28, Pgs 607-666

College of Nurses of Ontario, Standards of Practice--Medication Administration

Pharmacy and Therapeutics Committee. *Nunavut Formulary*

Approved by:	Effective Date:
11 FEB 2011 Chief Nursing Officer Date	April 1, 2011
February 11, 2011 Deputy Minister of Health and Social Services Date	

Department of Health Government of Nunavut	NURSING POLICY, PROCEDURE AND PROTOCOLS		
	Community Health Nursing		
TITLE:		**SECTION:**	**POLICY NUMBER:**
Dispensing Medications		Pharmacy	09-005-00
EFFECTIVE DATE:	**REVIEW DUE:**	**REPLACES NUMBER:**	**NUMBER OF PAGES:**
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APPLIES TO:			
Community Health Nurses			

POLICY 1:

A registered nurse may supply a client with required medications under the direction of a dental professional or medical practitioner who are licensed to practice in Nunavut and as defined in the *Nunavut Pharmacy Act* (S.Nu.2006, c.20). The nurse shall use reasonable care to ensure the validity of the prescriber.

POLICY 2:

The registered nurse is authorized to dispense medications, with or without a direct order from a medical practitioner or licensed dental professional, in accordance with the *Nunavut Formulary*.

The registered nurse shall have:

1. **An employer's policy for dispensing medication**
2. **Received additional instruction or education in pharmacy practices, pharmacology, and therapeutics**
3. **Access to a licensed pharmacist for consultative services**
4. **Access to a current approved *Nunavut Formulary.***

All pharmaceutical agents dispensed from a community health centre shall be done so according to this policy. This includes pharmaceutical agents prepackaged by a retail or hospital pharmacy and dispensed through the health centre.

DEFINITIONS:

Dispensing Pharmaceutical agents involves both technical and cognitive components. The technical component includes such tasks but not limited to receiving pharmaceuticals, selecting the drug to dispense, checking the expiry date, labeling the product, a final physical check of the product, and documentation.

The cognitive component of dispensing involves, but is not limited to, assessing the therapeutic appropriateness of the medication, being able to make recommendations, advising the client on the therapeutic use of the medication, proper storage, effectives of medication, and adverse effects.

Administering Pharmaceutical Agents is the delivery of *one supervised dose* of medication from the registered nurse to the client that includes: assessment, selection of appropriate medication, preparation, compounding, packaging, labeling, dispensing, documentation, monitoring, provision of education about the therapeutic use of the medication and the proper storage of the medication, and evaluating the effect of the medication on the client's health status.

PRINCIPLES:

- Managing the pharmacy is usually the role of a pharmacist. However, due to the lack of pharmacy services in most communities, community health nurses continue to perform these services.

- Registered nurses are accountable to practice according to accepted standards governing the dispensing of medication.

- The "Seven Rights" of dispensing are: Right client, Right medication, Right dose, Right time, Right route, Right reason, and Right documentation.

- Administering or dispensing of pharmaceutical agents shall be accompanied by appropriate documentation in the client's chart or by another documentation method approved by the employer.

RELATED POLICIES, GUIDELINES AND LEGISLATION:

Policy 06-008-00	Documentation Standards
Guideline 06-008-01	Documentation Standard Guidelines
Guideline 06-009-01	SOAP Documentation Guidelines
Policy 09-017-00	Compounding of Medications
Policy 09-018-00	Emergency Compounding of Tamiflu
Policy 09-010-00	Repackaging of Pharmaceutical Agents
Guideline 09-010-01	Repackaging of Pharmaceutical Agents — Container Specification Guidelines
Policy 09-011-00	Labeling Pharmaceutical Agents

REFERENCES:

Association of Registered Nurses of Newfoundland. (1999). *Standards Interpretation: Dispensing by Registered Nurses.* St. John's, NF.

Pharmacy and Therapeutics Committee. *Nunavut Formulary*

Nunavut Nursing Act (S.Nu. 2003, c.17)

Nunavut *Pharmacy Act (*S.Nu.2006, c.20)

Registered Nurses Association of the Northwest Territories and Nunavut. (2007). *Bylaw: Dispensing, Compounding and Packaging Drugs.* Yellowknife, NT.

Approved by:	Effective Date:
11 FEB 2011 **Chief Nursing Officer** **Date**	April 1, 2011
February 11, 2011 **Deputy Minister of Health and Social Services** **Date**	

Department of Health Government of Nunavut	NURSING POLICY, PROCEDURE AND PROTOCOLS		
	Community Health Nursing		
TITLE:		**SECTION:**	**POLICY NUMBER:**
Administering or Dispensing Pharmaceuticals - Documentation		Pharmacy	09-006-00
EFFECTIVE DATE:	**REVIEW DUE:**	**REPLACES NUMBER:**	**NUMBER OF PAGES:**
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APPLIES TO:			
Community Health Nurses			

POLICY:

The administration or dispensing of pharmaceutical agents shall be documented in the client's chart.

Documentation shall include the following information:

- **Client's name**
- **Date and time**
- **Pharmaceutical agent name and strength**
- **Dose, frequency, duration, and amount dispensed**
- **Route and/or site**
- **Signature and designation**

DEFINITIONS:

Documentation refers to charts, charting, recording, nurses' notes, progress notes. Documentation is written or electronically generated information about a client that describes the care (observations, assessment, planning, intervention and evaluation) or service provided to that client. (College of Registered Nurses of Nova Scotia, 2005)

REFERENCES:

Joint Commission on Accreditation of Health Care Organizations. (2002). *Medication Management Standards.* Atlanta, GA: Joint Commission Resources.

College of Registered Nurses of British Columbia. (2003). *Practice Standard for Registered Nurses and Nurse Practitioners: Medications.* Vancouver, BC.

College of Registered Nurses of Nova Scotia (2005). *Documentation Guidelines for Registered Nurses.*

Approved by:	Effective Date:
11 FEB 2011 **Chief Nursing Officer** **Date**	April 1, 2011
February 11, 2011 **Deputy Minister of Health and Social Services** **Date**	

Department of Health Government of Nunavut	NURSING POLICY, PROCEDURE AND PROTOCOLS		
	Community Health Nursing		
TITLE:		**SECTION:**	**POLICY NUMBER:**
Administering Medications – IM Injection		Pharmacy	09-007-00
EFFECTIVE DATE:	**REVIEW DUE:**	**REPLACES NUMBER:**	**NUMBER OF PAGES:**
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APPLIES TO:			
Community Health Nurses			

POLICY:

Intramuscular injections (IM) are given using the Z-track method unless otherwise ordered.

Due to the potential for complications from IM injections, the IM route should be used only when there is no alternative route of administration or the IM route will provide the best clinical outcome (e.g. treating anaphylaxis). If the practitioner has a choice of IM, IV or SC, use the IV or SC choice.

IM injections, for the purpose of immunizations, shall be administered according to the Canadian Immunization Guide.

DEFINITIONS:

Intramuscular Injection (IM): injection into a muscle determined by the injection site being used. The depth to the muscle varies depending on the depth of the subcutaneous tissue.

Subcutaneous injection (SC): injection into the layer of connective tissue below the skin. The depth of the subcutaneous layer varies.

Z-track method: a method of displacing subcutaneous tissue over muscular tissue to interrupt the tract of the IM injection. This recommended technique promotes improved distribution and absorption of the medication, and prevents complications such as seepage, bleeding, discoloration, lumps and indurations.

Ventrogluteal site (VG): Targets the gluteus medius muscle in the buttock and is the preferred site for IM injections.

Deltoid site: Targets the deltoid muscle below the Acromion process in the upper arm.

Dorsogluteal site (DG): Targets the Gluteus maximus muscle in the upper outer quadrant of the buttock. However, the muscle that is located using the quadrant method for the dorsogluteal site is usually the gluteus medius, which is the target muscle of the ventrogluteal site.

Vastus Lateralis site (VL): Targets the muscle below the greater trochanter and within the upper lateral quadrant of the thigh. The vastus lateralis muscle is one of the four quadriceps muscles.

Rectus Femoris site (RF): Targets the rectus femorus muscle of the thigh and is not approved for use as injections are usually painful.

PRINCIPLES:

Some medications are very irritating to subcutaneous tissue and should be given by the IM route. Some medications are not as effective when given by the SC route and need to be given IM.

Potential complications of an IM injection include abscess, cellulitis, tissue necrosis, granuloma, muscle fibrosis and contracture, intravascular injection, hematoma, and injury to blood vessels, bones and peripheral nerves.

Review "Parenteral Medication pages 573-627, Potter and Perry (2010) *Clinical Nursing Skills & Techniques 7th edition*" for further steps in ensuring safe IM medication administration.

RELATED POLICIES, GUIDELINES AND LEGISLATION:

Policy 09-004-00 Medication Administration – Nursing practice
Guideline 09-004-01 Guidelines for Administering Medications
Policy 09-006-00 Administering or Dispensing Medications – Documentation
Pharmacy & Therapeutics Committee. *Nunavut Formulary*
Potter & Perry (2010). *Clinical Nursing Skills & Techniques 7th edition*, Mosby.

Considerations

1. Explore the possibility of administering the medication via an alternate route (e.g. S.C.) due to the potential complications of IM injections.

2. Confirm the need for an IM injection with the physician if the client is on anticoagulants due to the risk of developing a hematoma.

3. Rotate sites for multiple injections. The medication being given may limit the choice of sites available.

4. Maximum volume of an IM injection is 3 ml, except for the deltoid site where the maximum does not exceed 2 ml (1 ml or less is preferred) where the client's muscle mass is adequately developed.

5. Use a solution as concentrated as possible to minimize the volume of the injection, and as small a syringe as possible to hold the medication.

6. Completely expose the injection site to assess the target injection area and accurately locate landmarks and boundaries.

7. Use a new needle to administer the injection when a needle is used to draw up the medication. This prevents medication from adhering to the needle causing irritation of the tissue.

8. Do not give Meperidine (Demerol) in the Vastus Lateralis Site.

9. For IM immunizations:

    a. Use vastus lateralis in infants only.

    b. Use the deltoid site for all children over the age of one (1) unless the muscle mass is assessed to be too small.

    c. Refer to the Canadian Immunization Guide for further details.

Antiseptic use

Contact time includes scrubbing and drying time.

Alcohol Swab or Chlorhexidine 2% in alcohol 70%: contact time 30 seconds

Equipment for Z-Track IM Injections

- 1 vial adaptor for multi dose vials of medication with 1 blunt cannula or
- 1 vial access cannula or
- 1 Blunt fill needle
- 1 needle--length and gauge as determined by client assessment
    - 22 g 11/2" (0.7mm x 40mm)
    - 23 g 1" (0.6mm x 25mm)
    - 25 g 1" (mm x 25mm)
- 1 syringe (no larger than needed for the volume of medication)
- 1 alcohol swab
- 1 pair of non-sterile gloves
- 1 Sterile Gauze 5cm x 5cm or band aid
- 1 strip of non-allergic tape

Procedure for Z-Track IM Injection

1. Assess the client to determine the most appropriate site for the injection and the correct needle length for the injection.

    a) Check documentation to determine the sites used for previous injections in order to rotate sites (if applicable).
    b) Damaged or scarred tissue, poor muscle mass, accessibility and mobility are factors that may prevent the use of a particular site.
    c) Thin or cachectic clients must be assessed carefully to determine a muscle with adequate mass for the injection.
    d) Determine if the client has a preference for the site used.
    e) To determine needle length:
        i. by pinch test:
            - For the deltoid and quadriceps muscles, grasp the muscle between thumb and forefinger. The needle length is ½ the distance between the thumb and forefinger plus 0.6 cm to 1.2 cm extra to penetrate the muscle.
            - For the gluteus muscle, pinch skin and subcutaneous tissue between fingers. Depth to the muscle is ½ the distance between fingers. Add 0.6 cm to 1.2 cm to penetrate the muscle.

        ii. by weight for the gluteus muscle
            - 31-40 Kg use a needle 1 inch long
            - 40-90 Kg use a needle 1½ -3 inches long
            - 90 Kg and more use a needle 4-6 inches long

2. Perform hand hygiene. Prepare the medication. Use a vial adapter and blunt cannula for multi dose vials, a vial access cannula for single dose vials and a blunt fill needle for ampoules (if blunt cannula are not available, a needle may be used to draw up medications).

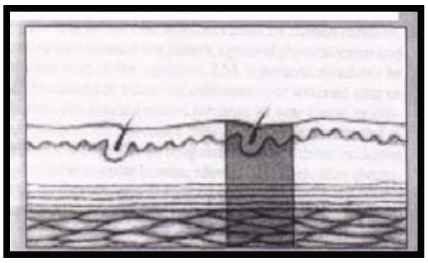
3. Attach the appropriate size and length of needle. If a needle was used to draw up the medication change the needle. Expel any air bubbles from the syringe making sure that the medication does not contact the outside of the needle.

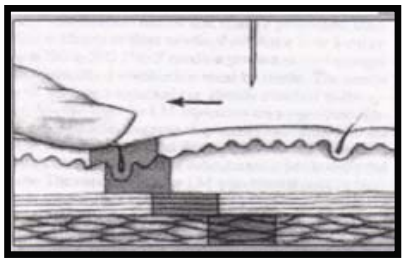
4. Perform hand hygiene. Put on gloves. Position client so the target muscle is relaxed.

5. Landmark and cleanse the injection site with an alcohol swab. Prepare the skin using a circular motion from the center outward cleaning an area at least 7cm in diameter. Allow the alcohol to dry. Contact time for cleansing and air drying the skin is 30 seconds.

6. Landmark again to ensure proper injection site.

7. With the non-dominant hand, displace the skin laterally by pulling about 2-3 cm away from the injection site.





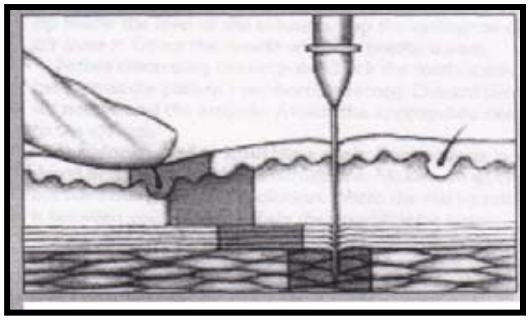
8. Insert the needle at a 90 degree angle using a firm, quick motion.

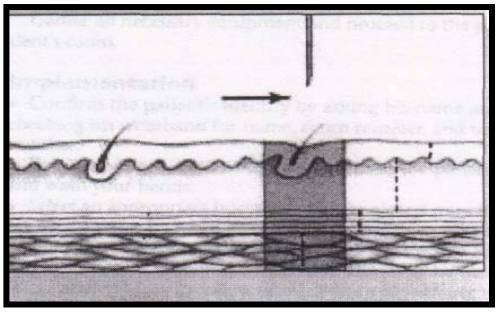
9. Aspirate for 5-10 seconds to assess for blood return. If blood is aspirated, do not inject the medication, discard the medication and prepare a new syringe starting the procedure back at step 2.

10. If there is no blood return after aspirating, hold the position firmly and inject the medication slowly (about 10 seconds per ml) to allow distribution within the muscle. If the client complains of excessive pain, severe burning, or nerve pain stop the injection.

11. Wait 10 seconds before withdrawing the needle to ensure the medication is dispersed and prevent backfilling into the injection tract.

12. Withdraw the needle quickly and release the skin.





13. Apply firm pressure to the site using the sterile gauze or alcohol swab. Apply a band aid if needed. Do not massage the site after a Z-track injection to prevent medication from seeping back along the zigzag path into the subcutaneous tissue causing irritation and to prevent trauma to the site.

14. Assess the client's response to the medication in about 15-30 minutes as appropriate.

15. Reassess the injection site if the client complains of acute pain, burning, numbness or tingling at the site that may indicate injury to underlying nerves or bones. Notify the physician.

Paediatric Considerations:

- Assistance is often required for proper positioning and holding of the child during IM injections. Distractions, such as blowing bubbles and pressure at the injection site before giving the injection, can help alleviate the child's anxiety.

- If possible, apply EMLA cream on injection site at least 2 ½ hours before IM injection to decrease pain.

Documentation:

Record the date, time, dose, route of medication and site of injection. Also document any reactions.

Client Education:

1. Assess client knowledge of the medication and educate as necessary.
2. Encourage client to ambulate if permitted.
3. Following the injection the client may apply a warm compress for 20 minutes to facilitate absorption of the medication.
4. Instruct client not to massage the site of the injection.
5. For clients having multiple injections, encourage the client to keep a diary of injected sites.

References:

Potter, P.A.: & Perry, A.G. *(2010). Clinical Nursing Skills & Techniques*, 7th edition, Mosby.

The Ottawa Hospital Parenteral Administration Manual

Nocoll, L.and Hesbym A. (2002). Intramuscular injection: An Integrative Research Review and Guideline for Evidence-Based Practice. *Applied Nursing Research*, *16*(2). pp149-162.

Rodger, M. A. & King, L. (2000). Drawing up and Administering Intramuscular Injections: A review of the literature. *Journal of Advanced Nursing*, 31(3) pp 574-582.

Nisbet, A. C. (2006). Intramuscular Gluteal Injections in the Increasingly Obese Population: Retrospective study. *BMJ* , 332. Pp 637- 638.

Approved by:	Effective Date:
11 FEB 2011 Chief Nursing Officer — Date	April 1, 2011
February 11, 2011 Deputy Minister of Health and Social Services — Date	

Department of Health Government of Nunavut	NURSING POLICY, PROCEDURE AND PROTOCOLS		
	Community Health Nursing		
TITLE:		**SECTION:**	**POLICY NUMBER:**
Administering Medications – IV Direct		Pharmacy	09-008-00
EFFECTIVE DATE:	**REVIEW DUE:**	**REPLACES NUMBER:**	**NUMBER OF PAGES:**
February 10, 2018	February 2021		5
APPLIES TO:			
Community Health Nurses			

POLICY:

A registered nurse may administer medications directly into an intravenous below the drip chamber in accordance with the *Nunavut Formulary* and *The Ottawa Hospital Parenteral Drug Therapy Manual*. The nurse must have specialized competence to give medications IV direct.

DEFINITIONS:

Intravenous direct refers to the administration of a medication directly into the intravenous line below the drip chamber or into a saline lock, over at least 60 seconds.

PRINCIPLES:

Refer to *The Ottawa Hospital Parenteral Drug Therapy Manual* for medications that are approved, instructions on maximum dose, dilution, vesicant properties, compatibility, rate of administration and special equipment such as tubing or filter.

Review "Parenteral Medication pages 573-627, Potter and Perry (2010) *Clinical Nursing Skills & Techniques 7th edition*" for further steps in ensuring safe IV medication administration.

RELATED POLICIES, GUIDELINES AND LEGISLATION:

Policy 09-004-00 Medication Administration – Nursing practice
Guideline 09-004-01 Guidelines for Administering Medications
Policy 09-006-00 Administering or Dispensing Medications – Documentation
Pharmacy & Therapeutics Committee. *Nunavut Formulary*
Potter and Perry (2010) *Clinical Nursing Skills & Techniques 7th edition*"

Considerations

1. Administer medications IV direct in accordance with *The Ottawa Hospital Parenteral Drug Therapy Manual*.

2. Do not administer IV medications through tubing that is infusing blood or blood products.

3. Assess vein patency for saline locks prior to administration of IV direct medication by injection of sterile saline. Assess vein patency of an infusing IV line, by site inspection and observation of a freely flowing IV with no client discomfort. Assess IV site for signs of phlebitis/infiltration prior to IV direct administration. If present a new site must be initiated.

4. Check client's history of allergies.

5. Assess client's understanding of purpose of medication.

6. Instruct client to report untoward symptoms during medication administration.

7. If *The Ottawa Hospital Parenteral Drug Therapy Manual* does not specify a rate of administration, the medication is to be administered over at least 60 seconds.

8. Maintain sterility of IV tubing between intermittent infusions. New sterile lever/threaded lock cannula must be placed on the end of reusable IV administration set that has been removed from a primary administration set, saline lock or IV catheter hub and left hanging in between use.

9. Primary and secondary continuous administration sets are to be changed every 72 hours and immediately upon suspected contamination or when the integrity of the product or system has been compromised.

10. Primary intermittent administration sets shall be changed every 24 hours and immediately upon suspected contamination or when the integrity of the product or system has been compromised.

11. Central Venous Access Device (CVAD): PICC lines are flushed and maintained according to Policy 11-001-02.

12. Provide ongoing assessment while the client is receiving medication through the appropriate device.

Equipment:

- Alcohol swabs
- Labelled Medication Syringe
- Syringes with sterile 0.9 % sodium chloride (or compatible sterile flushing solution if medication incompatible with normal saline)
- Blunt Plastic Cannulas (if unavailable use sterile needle)
- Lever or Threaded Lock Cannula (if unavailable secure needle or cannula with tape)

Procedure:

1. Refer to *The Ottawa Hospital Parenteral Administration Manual* for approved medication(s), dosage, dilution, rate of administration and compatibility.

2. Perform hand hygiene.

3. Verify client Identification and allergy status.

4. Administer medication as follows:

Saline lock

1. Clean injection port with alcohol swab.

2. Assess patency by flushing saline lock with 3 ml. normal saline as per Consideration # 3, remove flush syringe.

3. Clean injection port with alcohol swab.

4. Connect syringe containing medication to saline lock using blunt plastic cannula.

5. Inject medication within amount of time recommended using a watch to time administration.

6. After administering medication withdraw syringe.

7. Clean injection port with alcohol swab.

8. Flush:
   a) For peripheral saline lock, attach syringe with normal saline and inject 3 ml normal saline flush.
   b) If PICC catheter, follow the flushing protocol as per Guideline 11-001-02.
   c) Monitor client response to medication.

Infusing IV-Compatible with medication:

1. Select injection port closest to client.

2. Assess for patency as per Consideration #3.

3. Clean injection port with alcohol swab.

4. Connect syringe containing medication to IV line using blunt plastic cannula (or needle if blunt cannula not available)

5. Release tubing and inject medication within time recommended using a watch to time administration. IV tubing may be pinched while pushing medication and released when not pushing medication.

6. After injecting medication, withdraw syringe and recheck fluid administration rate.

7. Monitor client response to medication.

Infusing IV-Incompatible with medication

1. Select injection port closest to client.
2. Assess for patency as per Consideration #3.
3. Clamp IV tubing using roller clamp or slide clamp.
4. Clean injection port with alcohol swab.
5. Pre flush with 3 ml of sterile compatible solution for **peripheral lines**, 20 ml for **central lines**.
6. Connect syringe containing medication to IV line using blunt plastic cannula.
7. Inject Medication within time recommended using a watch to time.
8. After injecting medication, withdraw syringe and clean injection port with alcohol swab.
9. Post- flush with 3 ml of sterile compatible solution for peripheral lines.
10. Re-establish appropriate intravenous rate.
11. Monitor client response to medication.

Pediatric Considerations

- Therapeutic dosage of IV direct medications for infants and children is often small and difficult to accurately prepare, even with a tuberculin syringe.
- Where IV direct infusions are permitted, you need to infuse these medications slowly and in small volumes because of the risk for fluid volume overload.

Documentation

Document in the client's health record.

Client Education

Teach client the purpose of the medication and side effects to report.

References

The Canadian Intravenous Nurses Association [1999] Intravenous Therapy Guidelines.

The Ottawa Hospital Parenteral Therapy Administration Manual.

Perry, A. & Potter, P. (2010) *Clinical Nursing Skills & Techniques (7th ed.).* St. Louis: Mosby.

Weinstein, S. (2007) *Plummer's Principles & Practice of Intravenous therapy* (8th ed.). Philadelphia: Lippincott

Intravenous Nurses Society (2006) Infusion Nursing Standards of Practice. *Journal of Intravenous Nursing*, 29(1S) S22, S23, S 25, S 27,S 28, S 29, S 48

Registered Nurses Association of Ontario (2005). *Care and Maintence to reduce vascular access complications*. Toronto: author.

Registered Nurses Association of Ontario (2004). *Assessment and device selection for vascular access*. Toronto: author

Approved by:	Effective Date:
11 FEB 2011 **Chief Nursing Officer** **Date**	April 1, 2011
February 11, 2011 **Deputy Minister of Health and Social Services** **Date**	

Department of Health Government of Nunavut	NURSING POLICY, PROCEDURE AND PROTOCOLS	
	Community Health Nursing	
TITLE:	**SECTION:**	**POLICY NUMBER:**
Administering Medications via Subcutaneous Infusion Set	Pharmacy	09-009-00
EFFECTIVE DATE: / **REVIEW DUE:**	**REPLACES NUMBER:**	**NUMBER OF PAGES:**
February 10, 2018 / February 2021		5
APPLIES TO:		
Community Health Nurses		

POLICY:

The administration of medication through an indwelling subcutaneous infusion set may utilize continuous or intermittent methods. The nurse may administer medications via the subcutaneous (SC) route as directed by a physician's order or a directive in the *Nunavut Formulary*.

DEFINITIONS:

Subcutaneous (SC) is the layer of connective tissue below the skin. The depth of the subcutaneous layer varies.

A **subcutaneous injection** is the injection of medication into the subcutaneous tissue.

Lipodystrophy is a condition that produces lumps or dents in the skin due to repeated injections into the same spot.

PRINCIPLES:

The administration of medications via an indwelling subcutaneous infusion set is a recognized method of drug delivery.

The decision to use an indwelling SC infusion set for intermittent injections is determined by the nurse. Factors influencing this choice include the frequency of injections, decreased pain from injections experienced by the client, and a client's fear of injections.

Review "Parenteral Medication pages 573-627, Potter and Perry (2010) *Clinical Nursing Skills & Techniques 7th edition*" for further steps in ensuring safe SC medication administration.

RELATED POLICIES, GUIDELINES AND LEGISLATION:

Policy 09-004-00 Medication Administration – Nursing practice
Guideline 09-004-01 Guidelines for Administering Medications
Policy 09-006-00 Administering or Dispensing Medications – Documentation
Pharmacy & Therapeutics Committee. *Nunavut Formulary*
Potter and Perry (2010) *Clinical Nursing Skills & Techniques 7th edition*"

REFERENCES:

Perry, A. G. and Potter, P.A. (2010). *Clinical Nursing Skills and Techniques 7th ed*. Mosby: St. Louis.

Lewis, S., Heitkemper,M., and Dirksen S. (2004). *Medical-Surgical Nursing: Assessment and Management of Clinical Problems 6th ed.* Mosby: St Louis

Considerations

1. The decision to use an indwelling SC infusion set for intermittent injections is determined by the nurse. Factors influencing this choice include the frequency of injections, decreased pain from injections experienced by the client, and a client's fear of injections.

2. Careful assessment and selection of potential sites ensures adequate absorption of the medication. Appropriate sites include, but are not limited to, the abdomen, outer posterior aspect of arm, and anterior aspect of the thigh.
    a. The upper abdomen is the best site for clients with little peripheral subcutaneous tissue.
    b. The injection site should have good circulation and be free of tenderness, hardness, edema, and skin lesions such as moles and scar tissue.
    c. Assess the skin for lipodystrophy and avoid these areas.

3. Ask the client which site they prefer for needle insertion.

4. The depth of subcutaneous tissue influences the nurse's choice of needle length and angle of the needle insertion. Pinch the tissue to determine the required needle length. The preferred needle length is one half the width of the skin fold.

5. Insert a 25 G or 27G 3/8" butterfly needle at a 45° angle. For injection in obese clients, a ¾"needle is the longest needle for SC use and the angle of insertion is 90°.

6. The bevel may be inserted either up or down. There is no evidence to support either method.

7. For intermittent injections, use the smallest possible volume of Normal Saline to clear the infusion set between injections. This is to minimize the amount of fluid injected in the subcutaneous space. The volume required to flush the interlink injection adaptor is 0.2 ml, but the amount to flush infusion sets varies widely and is not always noted on the package. It is therefore important to note the required volume, determined in the procedure, in the client's health record.

8. Maximum volume for an intermittent injection is 2.5 ml including the flush solution.

9. Change and rotate the SC site and infusion set Q 3 days.

10. Change the SC site if the site is reddened, hardened, or leaking; or if the medication is changed. Also change the SC site if the concentration of medication for a continuous infusion is changed.

11. Assessments include site assessment at the beginning of each shift and intermittently through the day. Also assess the medication effect to determine that the desired effect is being achieved.

12. If medication effects change (e.g. client's pain increases), assess the site to determine if there is adequate absorption of medication. Change the SC site and re-assess the client. If the medication is still ineffective, (e.g. overall pain persists) notify the physician to re-assess the medication regime.

13. Use one site per intermittent medication or continuous infusion. Label each site to indicate the medication being delivered at that site. Medications may not be absorbed quickly from the subcutaneous tissue and they may interact when more than one medication is being given at the same site.

14. Continuous infusions are delivered using an infusion pump.

Equipment

- 2% chlorhexidine with 70% alcohol prep pad
- IV 3000 transparent dressing 6 cm X 7 cm
- Adhesive fabric dressing (e.g. Primapore) in hypersensitive clients
- Subcutaneous infusion set:
  #25 G 3/8”
  #27 G 5/8”
  #27 G ½”
  For obese clients-Subcutaneous infusion set #25 G with ¾” needle

- Non sterile Gloves
- Appropriate infusion administration set for infusion pump (for continuous infusions)

For intermittent infusions, also include:

- 3 ml syringe
- Single dose vial cannula
- Sterile normal saline vial to flush set
- Blunt plastic cannula
- Interlink injection adapter
- Medication as ordered

Procedure for Inserting SC Infusion Set

1. Perform hand hygiene and glove.

2. Assess and select a subcutaneous site with good circulation and that is free of redness, swelling, tenderness and hardness.

3. Select appropriate infusion set, open package and remove cap.

4. Attach interlink injection adaptor to infusion set for intermittent infusions. Attach appropriate tubing/extension to the infusion set for continuous infusions.

5. Prime the infusion set and tubing with the medication for continuous infusions. For intermittent administration of medication, prime the interlink injection adaptor and the infusion set with Normal Saline and document the volume of Normal Saline required.

6. Maintain sterility of set by leaving it in the package.

7. Cleanse selected skin area well with an alcohol/chlorhexidine swab covering an area 10cm in circumference. Allow to air dry.

8. Hold the wings of the infusion set and insert the needle at a 45° angle. If the client is obese, insert the needle at a 90° angle. Cover with transparent dressing, ensure that the dressing covers one inch around the insertion site. Date the dressing. If the client is receiving more than one medication by an indwelling SC set, write the name of the medication to be administered at this site.

Additional Procedure for Intermittent Injections

1. Prepare the medication ordered by the physician or through the Nunavut Formulary and the Normal Saline flush solution.

2. Cleanse the interlink injection port with an alcohol swab.

3. Slowly deliver the medication.

4. Flush the infusion set with normal saline flush solution to ensure all the medication has been delivered. The volume required was determined and documented in step 5.

Additional Procedure for Continuous Infusions

1. Using an infusion pump, start the infusion.

2. Follow the procedure for continuous infusion according to the instructions included with the infusion pump being used and the physician's orders.

3. Attach the infusion set directly to the administration set for continuous infusions.

Pediatric Consideration

Only administer amounts up to 0.5ml subcutaneously in small children.

Documentation

1. Document insertion, date and location of indwelling infusion set in the client's health record.
2. Document the volume of Normal Saline required to flush the infusion set and interlink adaptor in the client's health record.
3. Document all medications in the appropriate section of the client's health record.

Client Education

Teach the client to inform the nurse if there is any pain, redness, leaking, or swelling at the site; or if there is decreased medication effect.

References

Perry, A. G. and Potter, P.A. (2010). *Clinical Nursing Skills and Techniques 7th ed*. Mosby: St. Louis.

Lewis, S., Heitkemper,M., and Dirksen S. (2004). *Medical-Surgical Nursing: Assessment and Management of Clinical Problems 6th ed.* Mosby: St Louis

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11 FEB 2011 Chief Nursing Officer — Date	April 1, 2011
February 11, 2011 Deputy Minister of Health and Social Services — Date	

Department of Health Government of Nunavut	NURSING POLICY, PROCEDURE AND PROTOCOLS
	Community Health Nursing

TITLE:		**SECTION:**	**POLICY NUMBER:**
Repackaging Pharmaceuticals		Pharmacy	09-010-00
EFFECTIVE DATE:	**REVIEW DUE:**	**REPLACES NUMBER:**	**NUMBER OF PAGES:**
February 10, 2018	February 2021		3
APPLIES TO:			
Community Health Nurses			

POLICY:

Registered nurses may repackage pharmaceutical agents in accordance with Guidelines 09-010-01.

DEFINITIONS:

Repackaging of pharmaceutical agents is the subdividing or breaking up a manufacturer's original package of a pharmaceutical agent for the purpose of repackaging the pharmaceutical agent into smaller quantities for use by clients.

It is also the placing of already prescribed pharmaceutical agents into a compliance aide, e.g. daily use containers. Repackaging must meet standards that ensure quality and safety of the pharmaceuticals.

PRINCIPLES:

- Repacking pharmaceutical agents can enhance a particular client's ability to comply with the pharmaceutical agent.
- Registered nurses work collaboratively with pharmacists to reduce the amount of repackaging of prescription pharmaceutical agents in the community health setting.

RELATED POLICIES, GUIDELINES AND LEGISLATION:

Guideline 09-010-01	Repackaging Pharmaceuticals - Container Specification Guidelines
Policy 09-11-00	Labeling Pharmaceutical Agents

REFERENCES:

Canadian Standards Association. (2000). *Standard: Reclosable Child Resistant Containers.* CAN/CSA-Z76.1-1790.

College of Pharmacists of British Columbia. (2005). *Standards to Assist Dispensing Practitioners.* Vancouver, BC.

Food and Drugs Act R.S.C. 1985, F-27, s. C.01.001(2).

Joint Commission on Accreditation of Health Care Organizations. (2002). *Medication Management Standards.* Atlanta, GA: Joint Commission Resources.

Registered Nurses Association of the Northwest Territories and Nunavut. (2007). *Bylaw: Dispensing, Compounding and Packaging Drugs.* Yellowknife, NT.

GUIDELINE 09-010-01

CONTAINERS

All prescriptions must be dispensed in a container that is certified as a "child-resistant package" by the Canadian Standards Association (CSA).

In certain instances, regular closures can be used provided that:

1. The person for whom the prescription is intended directs otherwise
2. In the professional judgment of the practitioner it is not advisable to use a child-resistant package in that particular situation
3. A child-resistant package is not suitable because of the physical form of the drug or the manufacturer's packaging is designed to improve client compliance
4. Child-resistant package is unavailable on the market.

REFERENCES

Canadian Standards Association. (2000). *Standard: Reclosable Child Resistant Containers.* CAN/CSA-Z76.1-1790.

College of Pharmacists of British Columbia. (2005). Standards to Assist Dispensing Practitioners. Vancouver, BC.

Registered Nurses Association of the Northwest Territories and Nunavut. (2007). Bylaw: Dispensing, Compounding and Packaging Drugs. Yellowknife, NT.

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Department of Health Government of Nunavut	NURSING POLICY, PROCEDURE AND PROTOCOLS
	Community Health Nursing

TITLE:		SECTION:	POLICY NUMBER:
Labeling Pharmaceutical Agents		Pharmacy	09-011-00
EFFECTIVE DATE:	**REVIEW DUE:**	**REPLACES NUMBER:**	**NUMBER OF PAGES:**
February 10, 2018	February 2021		2

APPLIES TO:
Community Health Nurses

POLICY:

In the community health setting all containers, in which medications are dispensed, shall be labeled in a standardized manner according to the applicable Health and Social Services' policies, legislations and regulations, and standards of practice.

Labels must include the following information:

- **Manufacturer's pharmaceutical agent name**
- **Strength**
- **Frequency**
- **Route**
- **Duration**
- **Amount dispensed**
- **Client's name**
- **Date dispensed**
- **The initials of the registered nurse dispensing the pharmaceutical agent**

Every effort shall be made to affix the completed label to the pharmaceutical agent container.

DEFINITIONS:

Labeling is the process of preparing and affixing a label to any pharmaceutical agent container.

REFERENCES:

Joint Commission on Accreditation of Health Care Organizations. (2002). *Medication Management Standards.* Atlanta, GA: Joint Commission Resources.

College of Registered Nurses of British Columbia. (2003). *Practice Standard for Registered Nurses and Nurse Practitioners: Medications.* Vancouver, BC.

College of Registered Nurses of Nova Scotia (2005). *Documentation Guidelines for Registered Nurses.*

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11 FEB 2011 **Chief Nursing Officer** **Date**	April 1, 2011
February 11, 2011 **Deputy Minister of Health and Social Services** **Date**	

Department of Health Government of Nunavut	NURSING POLICY, PROCEDURE AND PROTOCOLS
	Community Health Nursing

TITLE:		**SECTION:**	**POLICY NUMBER:**
Controlled Substances		Pharmacy	09-012-00
EFFECTIVE DATE:	**REVIEW DUE:**	**REPLACES NUMBER:**	**NUMBER OF PAGES:**
February 10, 2018	February 2021		2
APPLIES TO:			
Community Health Nurses			

POLICY:

All registered nurses are accountable for the safe acquisition, documentation, distribution and eventual destruction of Controlled Drugs and Substances in accordance with the Nunavut Pharmacy and Therapeutics *Policy and Procedures for Handling Controlled Substances in Community Health Centres and Birthing Centre in Nunavut.*

DEFINITIONS:

For the purposes of this policy **Controlled Substances** collectively refers to narcotics, controlled drugs, benzodiazepines and other sedatives.

PRINCIPLES:

Additional Regional policies and protocols regarding controlled substances may exist and should be followed as an adjunct to the Nunavut Pharmacy and Therapeutics *Policy and Procedures for Handling Controlled Substances in Community Health Centres and Birthing Centre in Nunavut.*

RELATED POLICIES, GUIDELINES AND LEGISLATION:

Controlled Drugs and Substances Act R.S.C. 1996, c. 19.

Nunavut Pharmacy and Therapeutics *Policy and Procedures for Handling Controlled Substances in Community Health Centres and Birthing Centre in Nunavut*

Approved by: 11 FEB 2011 **Chief Nursing Officer** **Date**	Effective Date: April 1, 2011
February 11, 2011 **Deputy Minister of Health and Social Services** **Date**	

Department of Health Government of Nunavut	NURSING POLICY, PROCEDURE AND PROTOCOLS		
	Community Health Nursing		
TITLE:		**SECTION:**	**POLICY NUMBER:**
Audit of Controlled Substances		Pharmacy	09-013-00
EFFECTIVE DATE:	**REVIEW DUE:**	**REPLACES NUMBER:**	**NUMBER OF PAGES:**
February 10, 2018	February 2021		2
APPLIES TO:			
Community Health Nurses			

POLICY:

The Director of Health Programs delegate shall conduct an audit of controlled substances in each health centre at least once a year in accordance with the Nunavut Pharmacy and Therapeutics Committee *Policy and Procedures for Handling Controlled Substances in Community Health Centres and Birthing Centre in Nunavut.*

The findings of the audit shall be documented on the Nunavut *Controlled Substances Audit* form.

PRINCIPLES:

- The Regional office of Health and Social Services (HSS) is responsible for maintaining control of the controlled substances in each of its community health settings. The audit will be conducted during the annual community visit.

- Audits of controlled substances provides a mechanism to:
  - Ensure controlled substances are being dispensed appropriately.
  - Assist in identifying potential abuse and/misuse of drugs.

- The focus of monitoring /auditing is for continuous quality improvement.

REFERENCES:

Controlled Drug and Substances Act R.S.C. 1996, c.19

Nunavut Pharmacy and Therapeutics *Policy and Procedures for Handling Controlled Substances in Community Health Centres and Birthing Centre in Nunavut*

Government of Nunavut *Controlled Substances Audit* form

Approved by: 11 FEB 2011 **Chief Nursing Officer** **Date**	Effective Date: April 1, 2011
February 11, 2011 **Deputy Minister of Health and Social Services** **Date**	

Department of Health Government of Nunavut	NURSING POLICY, PROCEDURE AND PROTOCOLS	
	Community Health Nursing	
TITLE:	**SECTION:**	**POLICY NUMBER:**
Acquiring Blood and Blood Components	Pharmacy	09-014-00
EFFECTIVE DATE: / **REVIEW DUE:**	**REPLACES NUMBER:**	**NUMBER OF PAGES:**
February 10, 2018 / February 2021		1
APPLIES TO:		
Community Health Nurses		

POLICY:

The nurse will ensure safe acquisition of blood and blood components in accordance with the policies and procedures contained within the *Health Centre Laboratory Manual*.

RELATED POLICIES, GUIDELINES AND LEGISLATION:

Health Centre Laboratory Manual – Transfusion manual

Receiving Blood, Blood Component and Fractionated Products Procedure
Temperature Check of Blood and Blood Components Procedure
Visual Inspection of Blood, Blood Components and Fractionated Products Procedure
Issuing Blood Components
Shipment of Blood and Blood Components to External sites

Approved by:	Effective Date:
11 FEB 2011 Chief Nursing Officer — Date	April 1, 2011
February 11, 2011 Deputy Minister of Health and Social Services — Date	

Department of Health Government of Nunavut	NURSING POLICY, PROCEDURE AND PROTOCOLS		
	Community Health Nursing		
TITLE:		**SECTION:**	**POLICY NUMBER:**
Administering Blood and Blood Components		Pharmacy	09-015-00
EFFECTIVE DATE:	**REVIEW DUE:**	**REPLACES NUMBER:**	**NUMBER OF PAGES:**
February 10, 2018	February 2021		7
APPLIES TO:			
Community Health Nurses			

POLICY 1:

A physician's order is required to administer blood or blood components.

POLICY 2:

The nurse is authorized to administer uncrossmatched blood during emergency situations, as ordered by the physician and in accordance with the *Health Centre Laboratory Manual*.

POLICY 3:

The nurse will ensure safe transfusion in accordance with the *Health Centre Laboratory Manual*. The nurse will assess client status during and after the blood transfusion. Every effort should be made by the health care team to reduce the risk of wasting blood products which are in short supply.

PRINCIPLES:

Review "Blood Transfusions pages 785-801, Potter and Perry (2010) *Clinical Nursing Skills & Techniques 7th edition*" for further steps in ensuring safe administration of blood and blood components.

DEFINITIONS:

A **blood transfusion** is a procedure in which blood or blood components are given intravenously to a client. The major components of whole blood usually used for transfusion include; red blood cells, plasma, cryoprecipitate, and platelets.

RELATED POLICIES, GUIDELINES AND LEGISLATION:

Health Centre Laboratory Manual – Transfusion manual
- Uncrossmatched Blood Procedure
- Administration of Blood and Blood Products – Emergency Uncrossmatched Blood Consent Form
- Receiving Blood, Blood Component and Fractionated Products Procedure
- Temperature Check of Blood and Blood Components Procedure
- Visual Inspection of Blood, Blood Components and Fractionated Products Procedure
- Issuing Blood Components
- Shipment of Blood and Blood Components to External sites

Policy 09-014-00 Acquiring Blood and Blood Components
Guideline 09-015-01 Guidelines for Administering Blood Products
Guideline 09-015-02 Guidelines for Using a Pressure Device in Blood Transfusions
Policy 09-016-00 Suspected Adverse Reaction to Transfusion

REFERENCES:

Government of Nunavut. Health Centre Laboratory Manual.

Perry & Potter (2010). *Clinical Nursing Skills & Techniques*. Mosby.

GUIDELINE 09-015-01

NURSING ALERTS:

1. Blood is only compatible with 0.9% Sodium Chloride solution**.** Other intravenous solutions can cause precipitates and/or destruction of the red blood cells.

2. The rate of infusion for blood, blood components and fractionated products must be ordered by a physician. Packed Red Blood Cells are generally administered at a rate of 1.5 to 2 hours per unit. Total infusion time should not exceed 4 hours for each blood unit.

3. Medications must not be added or co-administered with blood or blood components.

4. Return unused blood to the Regional laboratory immediately as per the policies and procedures contained within the *Health Centre Laboratory Manual*. Contact the staff at the Regional Laboratory for additional assistance if required.

5. Blood and blood components must be transfused within four hours.

6. During a life-threatening situation, unmatched O negative red cells may be administered according to the policies and procedures contained within the *Health Centre Laboratory Manual.*

7. A blood administration set must be changed after a maximum of four units of red cells have been infused. A blood administration set must be changed at least once every 24 hours. Infuse 0.9% Sodium Chloride to maintain venous access between each unit.

8. Monitor the client for potential transfusion reactions and circulatory overload. All suspected transfusion reactions must be documented, reported and investigated. Refer to Policy 09-016-00 Suspected Adverse Reactions to a Transfusion.

9. Use large bore IV access to avoid hemolysis of red blood cells (suggest 20 gauge or larger when possible).

10. Obtain vital signs including temperature prior to initiating transfusion, then at 5 minutes, 15 minutes and every 30 minutes until one (1) hour after the completion of the transfusion.

11. A pressure device is used to infuse red blood cells or whole blood when oxygen carrying capacity and blood volume of the client needs to be increased rapidly. The pressure limit should not exceed 300 mmHg. Never apply pressure with a blood pressure cuff. Do not use a pressure device with a PICC line.

12. If client condition permits, transfusions should be initiated at a slow rate for the first fifteen minutes.

EQUIPMENT:

Administration set for delivery of Red Blood Cells:

- Gravity set – straight type or Y type (Y type is preferred) OR
- Infusion pump set – Y type
- 170-260 micron filter
- IV catheter large bore (20 Gauge or larger)

PROCEDURE:

1. Obtain physician order for blood product administration and arrange transport of blood products from Regional Laboratory and medivac team (if applicable).

2. Verify temperature and quality of blood products upon arrival in the health centre, as per the policies and procedures in the *Health Centre Laboratory Manual*.

3. Ensure client has a patent intravenous access (central or peripheral) prior to preparing blood and products for transfusion**.**

4. Obtain baseline vital signs including temperature just prior to initiating transfusion, then at 5 minutes, 15 minutes and every 30 minutes until one (1) hour after completion of the transfusion.

5. Prime blood administration set with appropriate solution.

6. Inspect the product for any abnormalities: color, presence of clots etc.

7. Two nurses (with at least one being an RN) must perform a pre-transfusion check prior to initiating a blood/component transfusion to ensure the right client will receive the right blood/component.

The following information must be checked at the recipient's bedside:

1. Verify the recipient's name and date of birth

2. Verify the following information:
    a) blood/component type and identification number
    b) ABO group and Rh (D) of blood unit
    c) ABO group & Rh (D) of recipient against ABO group & Rh (D) of blood unit
    d) expiry date

3. If a discrepancy exists, immediately notify the lab tech from the Regional Laboratory and determine if the blood is to be returned.

4. The same two nurses must sign the Transfusion Medicine issue report after completion of the pre-transfusion check. The date and time of the verification must be documented on the issue report

5. Initiate transfusion of red blood cells. Begin transfusion slowly and transfuse over 1.5 to 2 hours or as ordered by physician.

6. Monitor vital signs as indicated in Nursing Alert #10 and continually assess for adverse reactions.

POTENTIAL ADVERSE TRANSFUSION REACTIONS:

- Hemolytic
- Febrile
- Allergic
- Sepsis
- Circulatory overload
- Anaphylactic
- TRALI (Transfusion-related acute lung injury)
- TA-GVHD (Transfusion associated Graft versus host disease)

PEDIATRIC CONSIDERATIONS:

- Infuse the first 50ml of a blood transfusion very slowly in a pediatric client. 5ml/minute for the first 15 minutes. Nurse should stay with the child during this time frame.
- A 27-, 26-, or 24-Gauge cannula can be used to infuse packed red cells without significant hemolysis. The use of a small gauge cannula often requires positive pressure through an infusion pump when the blood will not infuse by gravity alone.

CLIENT EDUCATION:

- Instruct client to notify nurse if experiencing any changes in status. Symptoms such as fever, chills, flushing, itching, rash, back pain, dizziness, and shortness of breath should be reported at once.

- Outpatients receiving blood transfusions must receive information about the signs and symptoms associated with latent transfusion reactions. Teaching must include information about what to do if a transfusion reaction occurs after discharge from the health centre.

- Recruit assistance from a clerk interpreter as required.

DOCUMENTATION:

Document the following on the client health record:

- Type of blood/blood component

- Blood/component unit identification number (do not affix numbered sticker)

- Date and time transfusion starts and ends

- Vital signs (baseline, 5min, 15 min, and every 30 min until one (1) hour after the transfusion)

- Client's response during and after the transfusion

- Identity of the individual who administered the transfusion

- Total volume infused and whether a pressure device was used.

- Client teaching regarding signs and symptoms of a transfusion reaction

REFERENCES:

Canadian Blood Services (2002). Circular of Information for the Use of Human Blood and Blood Components.

Canadian Society Transfusion Medicine – CSTM Standards for Hospital Transfusion Services (2004).

Canadian Standards Association – Z902-04- CSA Standards for Blood and Blood Components (2004).

Potter, P., A. & Perry, A., G. (2010). *Clinical Nursing Skills & Techniques* (7th Edition). Mosby.

Nunavut *Health Centre Laboratory Manual*

GUIDELINE 09-015-02

PROCEDURE FOR PRESSURE DEVICE IN BLOOD TRANSFUSION:

1. Apply the pressure device around the unit of blood
2. Pump device to maximum pressure of 300 mmHg
3. Assess the flow rate and maintain maximum pressure as unit of blood empties

CLIENT EDUCATION:

- Instruct client to notify nurse if experiencing any changes in status. Symptoms such as fever, chills, flushing, itching, rash, back pain, dizziness, and shortness of breath should be reported at once.
- Outpatients receiving blood transfusions must receive information about the signs and symptoms associated with latent transfusion reactions. Teaching must include information about what to do if a transfusion reaction occurs after discharge from the health centre.
- Recruit assistance from a clerk interpreter as required.

DOCUMENTATION:

Document the following on the client health record:

- Type of blood/blood component
- Blood/component unit identification number (do not affix numbered sticker)
- Date and time transfusion starts and ends
- Vital signs (baseline, 5 min, 15 min, and every 30 min until one (1) after the transfusion)
- Client's response during and after the transfusion
- Identity of the individual who administered the transfusion
- Total volume infused and whether a pressure device was used.
- Client teaching regarding signs and symptoms of a transfusion reaction

REFERENCES:

Canadian Blood Services (2002). Circular of Information for the Use of Human Blood and Blood Components.

Canadian Society Transfusion Medicine – CSTM Standards for Hospital Transfusion Services (2004).

Canadian Standards Association – Z902-04- CSA Standards for Blood and Blood Components (2004).

Potter, P., A. & Perry, A., G. (2010). Clinical Nursing Skills & Techniques (7th Edition). Mosby.

Approved by:	Effective Date:
11 FEB 2011 **Chief Nursing Officer** **Date**	April 1, 2011
February 11, 2011 **Deputy Minister of Health and Social Services** **Date**	

Department of Health Government of Nunavut	NURSING POLICY, PROCEDURE AND PROTOCOLS		
	Community Health Nursing		
TITLE:		**SECTION:**	**POLICY NUMBER:**
Suspected Adverse Reaction to a Transfusion		Pharmacy	09-016-00
EFFECTIVE DATE:	**REVIEW DUE:**	**REPLACES NUMBER:**	**NUMBER OF PAGES:**
February 10, 2018	February 2021		2
APPLIES TO:			
Community Health Nurses			

POLICY:

The nurse will assess the client during and after each blood transfusion for potential transfusion reactions. Vital signs will be monitored at 5 minutes, 15 minutes, and every 30 minutes until one (1) hour after transfusion. All signs and symptoms of a suspected transfusion reaction must be reported immediately to the physician.

Each suspected transfusion reaction shall be documented and investigated according to the policy and procedures of the *Health Centre Laboratory Manual*.

DEFINITIONS:

A **transfusion reaction** is a complication of a blood transfusion whereby an immunologic or non-immunologic response occurs. Transfusion reactions can develop within a few minutes of onset of transfusion and up to several hours to several days post transfusion. Types of transfusion reactions include: acute haemolytic, delayed haemolytic, allergic, febrile, bacterial, circulatory overload and transfusion related acute lung injury (TRALI).

Transfusion related acute lung injury (TRALI) is a life threatening condition associated with a blood transfusion. TRALI is likely precipitated by the transfer of antibodies from the donor's plasma against the recipient's leukocytes resulting in micro-vascular pulmonary damage. TRALI is characterized by dyspnea, hypoxia, chills, fever, cyanosis, and hypotension. A chest x-ray typically reveals bilateral pulmonary infiltrates without evidence of cardiac involvement or fluid overload. Symptoms can occur within one to six hours of transfusion.

PRINCIPLES:

Typical signs and symptoms associated with a transfusion reaction include fever, chills, rigors, shortness of breath, wheezing, bronchospasm, rash, urticaria, pruritus, flank pain, tachycardia, hypotension, restlessness, feelings of doom, oliguria, hematuria, vomiting and diarrhea. Most reactions occur within the first 15 minutes of a transfusion.

The transfusion will be discontinued immediately at the first sign or suspicion of a possible transfusion reaction.

RELATED POLICIES, GUIDELINES AND LEGISLATION:

Health Centre Laboratory Manual – Transfusion manual
Laboratory Investigation Protocol for Suspected Transfusion Reaction

Review "Blood Transfusions pages 785-801, Potter and Perry (2010) *Clinical Nursing Skills & Techniques 7th edition*" for further steps in ensuring safe administration of blood and blood components.

REFERENCES:

Canadian Society Transfusion Medicine – CSTM Standards for Hospital Transfusion Services, 2004.

Canadian Standards Association – Z902-04- CSA Standards for Blood and Blood Components, 2004.

Murphy, M., Pamphilon, D., H. (2001) *Practical transfusion Medicine.* Oxford: Blackwell Sciences Ltd.

Potter, P., A. & Perry, A., G. (2010). *Clinical Nursing Skills & Techniques* (7th Edition). Mosby.

Approved by: 11 FEB 2011 **Chief Nursing Officer** **Date**	Effective Date: April 1, 2011
February 11, 2011 **Deputy Minister of Health and Social Services** **Date**	

Department of Health Government of Nunavut	NURSING POLICY, PROCEDURE AND PROTOCOLS
	Community Health Nursing

TITLE:		SECTION:	POLICY NUMBER:
Compounding of Medications		Pharmacy	09-017-00
EFFECTIVE DATE:	**REVIEW DUE:**	**REPLACES NUMBER:**	**NUMBER OF PAGES:**
February 10, 2018	February 2021		2

APPLIES TO:
Community Health Nurses

POLICY

Simple compounding of pharmaceutical agents is within the scope of practice for registered nurses.

The final compound must not copy or duplicate a drug currently available in Canada, except when:

1. **There is a shortage or there is no supply of this commercially available product AND**

2. **The health care professional has determined there is a medical need for this product.**

When this circumstance occurs, the product may only be compounded during the period of shortage (e.g. compounding Tamiflu).

DEFINITIONS

For the purposes of this policy:

Compounding is the act of combining or mixing two or more ingredients together to produce another medication or alter the dosage of one of the ingredients. Compounding does not include the act of reconstitution.

PRINCIPLES

Every effort must be made to arrange for the pharmacist to compound the medication. In the event that the pharmacist is unable to compound the medication in the time frame required, the registered nurse may compound:

1. in accordance with employer policies and guidelines for that specific medication;
2. on the instruction of a pharmacist, nurse practitioner, physician, dentist or veterinarian
3. from a list of medication identified in the HSS Formulary as a compoundable medication and in accordance with employer policies and guidelines.

AND in all circumstances, prior to simple compounding

1. A registered nurse must have the specific knowledge, skills and judgments to compound the drug safely, effectively and ethically in accordance with the requirements of the policy and standards of practice;
2. The registered nurse uses clinical judgment and evidence-based practice when compounding pharmaceutical agents and ensures individual competence;
3. The compounded pharmaceutical agent must meets specific client needs

RELATED POLICIES, GUIDELINES AND LEGISLATION:

Policy 09-018-00 Emergency Compounding of Tamiflu
Guideline 09-018-01 Guidelines for Compounding Tamiflu

Nunavut Nursing Act (S.Nu. 2003, c.17)

Registered Nurses Association of the Northwest Territories and Nunavut. (2007). *Bylaw on Dispensing, Compounding and Packaging Drugs.* Yellowknife, NT.

REFERENCES

Health Canada. (2004). *Policy on Manufacturing and Compounding Drug Products in Canada POL-0051.* Ottawa, ON.

Nunavut Nursing Act (S.Nu. 2003, c.17)

Ontario College of Pharmacists. (1995). *Protocol of Delegating, Dispensing, and Compounding in Health Care Facilities.* Toronto, ON.

Registered Nurses Association of the Northwest Territories and Nunavut. (2007). *Bylaw on Dispensing, Compounding and Packaging Drugs.* Yellowknife, NT.

Registered Nurses Association of Northwest Territories and Nunavut (2004). *Guidelines for Nursing Practice Decisions*. Yellowknife: RNANTNU

Approved by:	Effective Date:
11 FEB 2011 **Chief Nursing Officer** **Date**	April 1, 2011
February 11, 2011 **Deputy Minister of Health and Social Services** **Date**	

Department of Health Government of Nunavut	NURSING POLICY, PROCEDURE AND PROTOCOLS Community Health Nursing Program Standards and Protocols	
TITLE: **Bronchiolitis Management Protocol**	**SECTION:** 9: Treatment & Emergent Services	**POLICY NUMBER:** 09-018-00
EFFECTIVE DATE: January 11, 2018	**REVIEW DUE:** January 2020	**REPLACES NUMBER:**
NUMBER OF PAGES: 7 (including appendix)		
APPLIES TO: Community Health Centres		

1. **BACKGROUND:**

Bronchiolitis is the most common reason for admission to hospital in the first year of life. It is a common reason for outpatient presentation in emergency rooms and nursing stations throughout Nunavut. The following medical directive has been adapted from the *J.A. Hildes Northern Medical Unit Guidelines for Northern Remote Practice: Bronchiolitis 1-24 months of age*.

The Department of Health *Bronchiolitis Management Protocol* is intended to (1) provide a standardized approach to community-based care in Nunavut; and (2) provide an authorizing mechanism for Community Health Nurses to communicate a medical diagnosis and initiate treatment for bronchiolitis. Guidelines do not replace clinical judgment; management decisions must be individualized.

CHNs are expected to practice within their own level of competence and seek guidance from their supervisor, physician or NP as needed. The CHN shall follow the usual consultation protocols and practices that are already in place for the community.

2. **MEDICAL DIRECTIVE:**

2.1 Community Health Nurses (CHN) may communicate a diagnosis of bronchiolitis when the following conditions in Table 1 are met:

Table 1: Inclusion Criteria for Diagnosis of Bronchiolitis

Presenting features for bronchiolitis include, but are not limited to the following:

- Less than 24 months of age
- Preceding upper respiratory illness
- Wheezes
- Cough
- +/- Fever

Practice Point: The patient *may* or *may not* present with signs of Respiratory Distress (which is not an inclusion criterion).

Respiratory Distress includes:

- Accessory muscle use, indrawing, nasal flaring
- Crepitations
- O_2 saturation <90%
- Elevated respiratory rate for age
- Colour change

2.2 CHNs may initiate treatment for bronchiolitis, without a direct physician or NP order, as outlined in this protocol when conditions of 2.1 have been met.

2.3 The physician or NP must be consulted when the conditions of this medical directive have not been met. See Contraindications section.

3. **RECIPIENT PATIENTS:**
   3.1 Children under the age of 24 months who present to the health centre and meet the criteria listed under Medical Directive statements 2.1.

4. **CONTRAINDICATIONS TO THIS MEDICAL DIRECTIVE:**
   The physician or NP must be consulted when any of the following conditions exist:
   4.1 The patient's history or physical exam findings do not match the criteria stated in 2.1 of this directive, or when there is diagnostic uncertainty.
   4.2 The patient exhibits signs of severe respiratory distress (Table 1). Urgent consult is required.
   4.3 The patient has a contraindication to the medication, as per the CPS or product monograph.

5. **AUTHORIZED IMPLEMENTERS:**
   5.1 Registered Nurses employed as Community Health Nurses.
   5.2 Sub-delegation is not permitted to an unregulated care provider or another health care provider not listed in this medical directive.

6. **PROTOCOL:**

   Refer to Table 2 for the Bronchiolitis Management Protocol
   (Consider printing off Table 2 – double sided - and posting in clinical areas for easy reference)

7. TABLE 2: BRONCHIOLITIS MANAGEMENT PROTOCOL:

PREVENTION		Opportunistically assess for risk factors and provide support and counseling ▪ Hand hygiene ▪ Inquire about infant or child tobacco exposure; counsel caregivers about tobacco exposure and smoking cessation ▪ Encourage exclusive breastfeeding for at least 6 months to decrease morbidity of respiratory infections RSV prophylaxis program is administered through the office of the Chief Medical Officer of Health. Consult the Regional Communicable Disease Coordinator.
ASSESSMENT		▪ Complete a detailed patient assessment. At minimum, obtain: a history of presenting illness, medical/social history, allergy status, medications, birthing history, immunization status and comprehensive physical exam. ▪ Consult physician if ≥ 1 risk factor for severe disease: Age < 12 weeks, history of prematurity, underlying cardiopulmonary disease or immunodeficiency. ▪ Clinical Scoring Sheet to be used to document respiratory status
DIAGNOSIS		▪ Diagnosis and assessment of severity is based on history and physical exam. Radiographic or lab studies (chest x-ray, culture, blood gas and viral PCR nasopharyngeal swab) should not be routinely obtained.
SURVEILLANCE		▪ For the purposes of Public Health surveillance only: when cases of bronchiolitis first appear in the community, up to five nasopharyngeal swabs from children of different ages over a time span of a few days should be obtained.
AIRWAY AND OXYGEN		▪ Maintain patent airway (positioning, suctioning, and mucous clearance) ▪ Continuous pulse oximetry may be considered ▪ Initiate supplemental O_2 via nasal prongs or mask (avoid "blow by" method) when O_2 sats are consistently <90%. NOTE: Use clinical judgement as different O_2 saturation thresholds may be appropriate for infants with chronic co-morbidities.
MEDICATIONS	**RACEMIC EPINEPHRINE**	A trial of nebulized racemic epinephrine may be administered. Racemic Epinephrine 2.25% 0.5 mL nebules for inhalation For infants < 5 kg: 0.25 mL by inhalation Q30min X2 doses For infants > 5 kg: 0.5 mL by inhalation Q30min X2 doses (add 0.9% NaCl for a total volume of 3 mL for nebulizer treatment)
		Reassess patient, including vital signs. Use Scoring Sheet for pre & post assessment. **Repeat epinephrine ONLY** if adequate clinical response is demonstrated after 1st dose (Decrease of ≥3 in pre/post scores). Consult MD
	SALBUTAMOL	Salbutamol is not routinely administered. A single dose may be administered where there is diagnostic uncertainty between bronchiolitis and asthma, a history of recurrent wheezing episodes, and family history of allergy, asthma, or eczema
		Salbutamol MDI (by spacer and face mask) doses suggested by weight: < 6 kg = 2 puffs 6 – 18 kg = 4 puffs 19 – 25 kg = 6 puffs > 25 kg = 8 puffs **Salbutamol nebule doses suggested by weight**: 3 – 6 kg = 0.625 mg 6 – 12 kg = 1.25 mg 12 – 20 kg = 2.5 mg > 20 kg = 5 mg
		Use Scoring Sheet for pre & post assessment. Repeat salbutamol **ONLY** if adequate clinical response is demonstrated (Decrease of ≥3 in pre/post scores). Consult MD
	ANTIBIOTICS	Antibacterial and antiviral medication should NOT be administered unless there is strong suspicion of a concurrent bacterial infection
	STEROID THERAPY	Systemic corticosteroids should NOT be administered. Some studies have shown benefit, but the risks are largely unknown.
	NEBULIZE 3% SALINE	Nebulized hypertonic saline should NOT be administered in the health centre.

Respiratory Therapy	▪ Perform nasal suctioning when clinically indicated. It should be superficial and reasonably frequent. In infants ≤ 3 months of age, it should be done regularly prior to feeds and nebulization when there is something to suction. ▪ Avoid chest physiotherapy and cool mist therapy
Monitoring	▪ Bronchiolitis scoring tools are not validated for determining disease severity, but are helpful for monitoring treatment effectiveness and communicating with consultants (see Appendix A: *Bronchiolitis Clinical Scoring Sheet*) ▪ Repeat clinical assessment frequently (using the bronchiolitis scoring sheet) this is the most important aspect of monitoring for deteriorating respiratory status ▪ Assess and maintain adequate hydration. Hold feeds and discuss alternate hydration management with MD when respiratory rate > 60 breaths/min when calm, or when there are other clinical concerns about increased work of breathing impacting ability to safely feed.
Discharge	Consider discharge home when: ▪ The patient is on oral feedings sufficient to prevent dehydration ▪ Respiratory status is improving ▪ Tachypnea and increased work of breathing are normal, mild or moderate ▪ Oxygen saturation is >92% on room air ▪ Caregiver coping well at home and reliable follow up can be arranged.
Family Education	▪ Nature of illness and expected clinical course of bronchiolitis ▪ To return to health centre if signs of worsening clinical status are observed. Such as increasing respiratory rate and/or work of breathing; inability to maintain adequate hydration; worsening general appearance. ▪ Importance of handwashing; eliminating exposure to environmental smoking; limiting exposure to contagious settings and siblings ▪ Advise that bottle propping and supine consumption of liquids in infants with respiratory infections may increase the risk of aspiration.
Follow up	Book follow up every 1-2 days until adequate clinical improvement is observed. Increase frequency depending on clinical status and the caregiver's ability to cope.
Consultation	Consult the Physician: ▪ Signs of moderate to severe respiratory distress is observed ▪ Patients with ≥1 risk factors for severe disease (Age < 12 weeks; history of prematurity; underlying cardiopulmonary disease or immunodeficiency) ▪ CHN is unsure how to proceed with care, has diagnostic uncertainty or unsure if conditions of this medical directive have been met
Consider medivac for admission	In consultation with the physician, consider a medivac when: ▪ Signs of severe respiratory distress ▪ Concerns of impending respiratory failure ▪ Supplemental O_2 required to keep sats > 90-92% despite treatment ▪ Infant has ≥1 high risk factors for severe disease ▪ Evidence of dehydration or history of poor fluid intake ▪ Cyanosis or history of recurrent apnea ▪ Caregivers unable to cope at home
Documentation	▪ Document the details of each patient encounter according to RNANT/NU documentation standards and Department of Health policies. ▪ The Bronchiolitis score sheet is to be used to document the initial and subsequent patient assessments- reference this sheet in the Progress Notes.

8. **RELATED POLICIES, PROTOCOLS AND LEGISLATION:**

Appendix A: Bronchiolitis Clinical Scoring Sheet
Community Health Nursing Policy 06-008-00: Documentation Standards
Community Health Nursing Policy 06-009-00: Documentation Format
Community Health Nursing Policy 05-009-00: Transferred Functions
Community Health Nursing Policy 05-009-00: Competency for Transferred Functions
Compendium of Pharmaceuticals and Specialties (CPS)
FNIHB *Pediatric Clinical Practice Guidelines for Nurses in Primary Care*: Chapter 10 Respiratory System
Nunavut Formulary

9. **REFERENCES:**

First Nations and Inuit Health Branch. (2001). *Pediatric Clinical Practice Guidelines for Nurses in Primary Care*. Ottawa, ON.

Government of Nunavut (2010). *Community Health Nursing Standards, Policies, and Guidelines*.

Ralston, S., Lieberthal, A., Meissner, H.C., Alverson, B., Baley, J.E., Gadornski, A.M., Johnson, D.W., Light, M.J., Maraqa, N.F., Medonca, E.A., Phelan, K.J., Zorc, J.Z., Stanko-Lopp, D., Brown, M.A., Nathanson, I., Rosenblum, E., Sayles, S., Hernandez-Cancio, S. (2014). Clinical Practice Guideline: The Diagnosis, Management, and Prevention of Bronchiolitis. *American Academy of Pediatrics* 134: 1474-1502.

Ralston, S., Hill, V., Martinez, M. (2010). Nebulized hypertonic saline without adjunctive bronchodilators for children with bronchiolitis. *Pediatrics*, 126: e520-e525.

Friedman, J., Rieder, M., Walton, J., Canadian Paediatric Society Acute Care Committee, Drug Therapy and Hazardous Substances Committee (2014). Bronchiolitis: Recommendations for diagnosis, monitoring and management of children one to 24 months of age. *Paediatric Child Health* 19(9): 485-91.

J.A. Northern Medical Unit, University of Manitoba (2014). Guidelines for Northern Remote Practice: Bronchiolitis 1-24 months of age.

Approved By: Colleen Stockley	Date: Jan 10/18
Colleen Stockley, Deputy Minister – Department of Health	
Approved By:	Date: January 12, 2018
Jennifer Berry, Chief Nursing Officer	
Approved By:	Date:
Dr. William MacDonald, Medical Chief of Staff, on behalf of the Medical Advisory Committee	

Allergies:
☐ NKA
☐ Unobtainable
☐ _____

Patient Name: _____
(Last Name) (First Name)
DOB: _____ (DD/MM/YY) Age: _____
Gender: M / F / U NU MRN#: _____

Appendix 1: Bronchiolitis Clinical Scoring Sheet

- Score infant at rest pre-therapy and 30 to 60 minutes post-therapy
- Therapy considered effective if there is a decrease of ≥ 3 points from pre- to post-therapy score

Points:		0	1	2	3
General Appearance		Active and alert	Irritable but responds to comfort, interested in feeds	Unsettled, no interest in toys/environment	Unresponsive to environment, focused on breathing
Respiratory Rate	< 6 mos	< 40	40-55	56-70	> 70
	> 6 mos	< 30	30-45	46-60	> 60
Retractions[1]		None	Mild	Moderate	Severe
Breath Sound Intensity (Air Entry)[2]		Good air entry	Slightly decreased	Decreased	Barely audible/absent
Adventitious Sounds*		Clear	Intermittent wheezes/crackles	Widespread wheezes/crackles	Widespread wheezes /crackles and/or grunting/ stridor

*No adventitious sounds in the absence of breath sounds should be scored as 3

[1]Retractions:

- *Mild:* Subcostal indrawing only (see Fig 1)
- *Moderate:* Retractions in subcostal region **and** one of the following: nasal flaring (see Fig 2), substernal, subclavicular or intercostal indrawing (see Fig 3), or tracheal tug (see Fig 4)
- *Severe:* Retractions in more than two anatomic regions

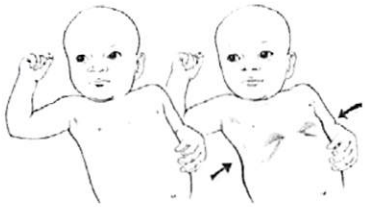

Fig 1: Subcostal Indrawing

Fig 2: Nasal Flaring

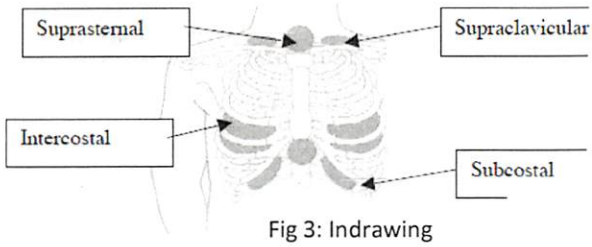

Fig 3: Indrawing

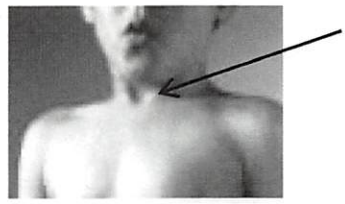

Fig 4: Tracheal Tug

[2]Breath Sound Intensity (Air Entry):

- *Slightly decreased:* Air entry decreased in a single lobe or generalized mild decrease in the intensity of vesicular breath sounds.
- *Decreased:* Air entry decreased in two or more lobes and/or only bronchial breath sounds audible and/or inspiratory breath sounds < expiratory breath sounds.

Bronchiolitis Clinical Scoring Sheet

Allergies:
- ☐ NKA
- ☐ Unobtainable
- ☐ ____________________

Patient Name: ______________________________
(Last Name) (First Name)
DOB: ____________ (DD/MM/YY) Age: ________
Gender: M / F / U NU MRN#: ______________

Medications:
E = Racemic Epinephrine
S = Salbutamol

Date (y/m/d)	Time (00:00)	Pre Rx	Post Rx	Med (E, S)	O_2 (L/min) or RA	SpO_2	HR	General Appearance	Respiratory Rate	Retractions	Breath Sounds (Air Entry)	Adventitious Sounds	Total Score	Score Difference	Initials
		✓													
			✓												
		✓													
			✓												
		✓													
			✓												
		✓													
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